MICHIGAN FARMER.

DEVOTED TO

AGRICULTURE, HORTICULTURE, AND RURAL AND DOMESTIC ECONOMY.

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EDITOR AND PROPRIETOR.

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[For particulars see last page]

For the Michigan Farmer.

Fencing.

NO. III.

Board Fence.—This kind of fence, which is so common, is to be preferred, as respects appearance, to the worm fence, although it is questionable whether in the way in which it is commonly built, it is an economical fence. This is to be settled by its cost and durability. The latter must depend upon the length of time the posts will last. In many parts of the country the farmer is limited in his choice of timber for posts, consequently he is often compelled to use timber that soon decays. The first cost of this kind of fence being comparatively great, those who regard economy only, will, I think, find it more for their interest to build some other kind of fence, unless posts can be procured at a small expense, that will last some fifteen or twenty years. Of the kinds of timber ordinarily used for posts, the red and white cedar stand first; but as these cannot generally be procured but at too great an expense, it becomes a matter of interest to the farmer to inquire whether any other material can be found as a substitute for them. Of the several kinds of oak that I have used, the swamp oak is decidedly the most durable, but will not, I think, last as long as white cedar. The Larch is decidedly inferior to either the Black Walnut or Butternut; and I am inclined to think less durable than either. The Catalpa, Mulberry and Yellow Locust are said to be very durable; the first, although a rapid grower, is too tender for a northern latitude, and the Mulberry grows too slow. The Locust grows rapidly, is said to be about as durable as the red cedar, and is cultivated as easily as the apple. After an orchard is set out, it has the power of self-propagation, by throwing up shoots from the roots whenever they are cut or broken, and a forest might be perpetuated without much labor or trouble. For four or five years they might need hoeing; after that it would require no attention. It is also exceedingly valuable for ship building, and other purposes, and where the farmer has not a supply of good fencing timber, he would do well to set out a patch, say half an acre, which would yield him an abundant supply.

To increase the durability of posts, several expedients have been suggested, and to some extent adopted. The first I shall mention, is that of charring the post where it is inserted in the ground. This, no doubt, has been recommended on account of the almost indestructible nature of coal, when exposed. In the absence of facts permit me to theorize. The process of charring, it appears to me, will rather diminish than increase the durability of posts, for water will penetrate charcoal as soon, if not sooner, than the solid wood, consequently will afford the post no protection against its influence and the post being diminished in size by the process will the sooner decay. *

Another expedient sometimes resorted to, to prevent posts from decay, is, to reverse them, placing the upper instead of the lower end in the ground. The reason assigned for this process is, that water cannot penetrate the post as rapidly from below, because the valves in the ducts or pores of the wood being reversed are closed by the water ascending, as they were forced open by the ascending sap, when in the position in which nature had placed them. Whether this be true or false philosophy, I leave for others more learned in the science of vegetable physiology than myself, to determine. I have but a single fact, which, as it seems to favor the expedient, I will mention. A gentleman informed me some years since, that in removing a board fence, he found about one half of the posts seasoned, while the other half were entirely decayed; seeing it shortly afterwrrds asserted in an agricultural paper, that posts, with the upper end inserted in the ground would be more durable, he came to the conclusion that this would explain the reason why one half of those he removed were sound, while the other were rotted, as the posts were sawed so that every alternate one would be thus inserted,

* We must beg leave to dissent from our correspondent on this point. It is matter of frequent observation that trees, or branches of trees, which have become charred by fires, are preserved in the charred places perfectly sound, while other portions decay.—Wood, so preserved acquires a hardness which any one who has wielded the axe against it, would not fail to remember.—With regard to our correspondent's theory, that charcoal, being a greedy absorbant of moisture, would therefore keep the interior wood wet, we differ from this conclusion. If it absorbs moisture readily, italso has the faculty of keeping it; and this property would prevent its communication to the wood covered by it. In proof of this, is the fact that charred sticks, when exposed to rains, are found to be dryer within than those not charred; indeed the former are almost water-proof.

The last expedient which I shall mention, is, to saturate the end of the post to be inserted in the ground, with salt. The following facts which appear in the last report of the commissioner of Patents seem to prove that salt will add much to their durability. John Williamson, Esq., of Syracuse remarks in reply to an inquiry made by the Hon. H. L. Ellsworth, late commissioner of Patents, that "the small posts or stakes driven under the salt vats, are considered as practically indestructible. Those that have been driven twenty years are sound. The whole business proceeds upon the assumption that they will not decay."

A Mr. Stillman, in a communication addressed to Jesse Buel Esq., former editor of the Cultivator, says, that he set hemlock posts, sawed four inches square, one half of which he salted, and the other half he set without salting. The latter were all rotted off in eight years, and were removed; while the former lasted from nineteen to twenty-one years, the first being removed in nineteen, and the last in twenty-one years, after they were set. He introduced the salt by boring a hole in the posts after they were set, commencing just above the ground and boring obliquely downward, filling the hole with dry salt and pluging it tight. A better mode would be, to bore into the end of the post, some two or three feet, and fill it with strong brine boiling hot, and after it has been absorbed by the wood, to fill the hole with salt thoroughly wet, and then plug it. The salt should be applied when the timber is green.

PETRA.

For the Michigan Farmer.

The Dairy--Inquiries.

MR. HURLBUT:—I desire information through the medium of your valuable publication,

1st. What breed of cows are most valuable for milk, butter and cheese? And if we wish to improve our stock of cows for the dairy business, how may we readily ascertain the quality or richness of milk, so that at any time we want to purchase a cow, we may know the medium quality of her milk? If it can be ascertained by weight, what will be a medium weight?

Will 25 pounds of a poor quality of milk, make as many pounds of cheese as 25 pounds of rich milk? If not, what is the proportionate difference, and also what will be the proportionate difference of butter, made from 25 pounds of milk of different qualities? or in other words how many pounds of milk of a poor quality, will it take to make the same number of pounds of butter that 25 pounds of rich milk may make, presenting it in a table something like the following, though it may be varied to the convenience of illustration, to wit:

Medium weight of 1 gallon milk is	lbs.	oz.
1st degree above medium is	lbs.	oz.
2nd " " " is	lbs.	oz.
1st degree below medium is	"	"
2nd " " " is	"	"

Finally, the proportionate difference between the widest variation of the quality of milk, that will be made in butter and cheese. It certainly appears important to me, to know accurately the difference between a cow that gives what is termed poor milk, and one that gives rich milk; and I presume very interesting to many. Therefore I hope it will call the attention of the public to this question. D. W. BAKER.

Quincy, Jan. 5, 1846.

Remarks.—We solicit the attention of some of the many among our subscribers, who can, if they will, give the above inquiries, (or some of them,) satisfactory answers. There are good dairymen in the state, and we should like to hear from them. —EDITOR.

For the Michigan Farmer.

Account of an Experiment in Raising Onions.

MR. EDITOR:—A few years since, when residing in the town of Solon, Cortland Co., N. Y., I was directed to make the garden.—The soil was a gravelly loam. Among the beds which were made, was an onion bed, about 8 feet by 20. The earth for this bed, was carefully spaded up to the depth of 11 inches, and with a garden rake, made very mellow.—The next day, the seed was sown in drills, crosswise the bed, the drills being about 7 inches apart. Immediately after the sowing of the seed, *one half* of the bed was stamped down as hard as the weight of a lad of 15 years of age by lightly stamping once or twice in a place would make it; while the *other half* was left light. Shortly after the onions were finely up, they were weeded and carefully thinned, so as to stand about 3 inches asunder, in the drills all over the bed. The soil during their growth, was not moved any more than was incident to the *pulling up* of the weeds.—With regard to the result, suffice it to say that the onions which grew on the part of the bed which *was stamped*, when compared with those which grew on the part which *was not stamped*, —came up first, grew more thriftily and were more than double in size and quantity—being in fact, as good a yield as I ever saw.—There is another somewhat important fact, pertaining to this matter, which it may be advisable to mention, and that is, that the *bulbs* of the onions which grew on that part of the bed last mentioned, grew *out* of the ground, while those which grew on the other, grew *in* it. Such is a brief account of the *experiment*. Whether it does or does not savor of "the fishy," of course is not for *me* to say. Perhaps, however, it will not be improper for me to say this much—that doubtless those who know the least of practical, and nothing of theoretical agriculture, will be the first to dispute its correctness. But it is to be remembered that the Science of Agriculture is still in its infancy—that we have neither heard or learned "the whole story" with reference to it. And although I could not but give full credence to what my hands did, and my eyes saw, still I was then, in a theoretical point of view, unable to assign a single reason for this great difference—this striking contrast be-

tween the thrift, size and quantity of the onions raised on the different parts of the bed.—To explain, however, the utility and advantage of *embedding small seeds in the soil* in which they are sown, and of thus bringing them in close contiguity with those fructifying elements which it has in store for them, renders the whole matter perfectly simple.—This has been ably done by two or three articles, published in some of the back numbers of your highly useful paper. Therefore, I willingly shrink from the task of reiterating any part of them, as it would be of but little moment to those who recollect what they read, and none at all to those who forget over night, what they read through the day.

A. Williams.

Otisco, January 30th, 1846.

From the Farmer's Cabinet.

Vegetable Manures.

These may be ranked under the head of negative manures—they do not stimulate, but quietly return to the soil what it has lost by previous exhaustion. They are in no way so active as animal manures, but by acting on the principle of slow, but sure, they gradually restore all that a soil has lost by bad cultivation, or from being overworked. Their decomposition may be hastened by lime, an alkali, or by animal manures. The loss of humus, or mould, is hence more certainly, though it may be more slowly, retrieved by vegetable manures than by any other form of fertilizing.

The plowing in of green crops has, on this principle, been found a most valuable mode of returning a soil to a fertile condition, and it is singular that a plan so manifestly correct, has not been more generally adopted. A few farmers in the county of Chester, either from the example of others, or by the suggestion of their own judgments, have gone back to the principle so long acted on in England, that one grain crop should not follow another, and have undertaken to follow oats with clover instead of wheat; the clover being plowed in, renews the strength of the land, and gives back to it some portion of that which was removed by the preceding crops.

This system of plowing in, or pasturing plants, is very ancient. It was used by the Romans, and is kept up by the Italians. The practice of sowing the lupin, which one may find commended by Columella, and turning it into the ground, is still employed in Italy. In this country, we have oats, Indian corn and clover for the same purpose.—One of the most beautiful examples of the enriching effects of vegetable decomposition may be seen on an old sod, which has not perhaps been touched by a plow for thirty or forty years. The effect is very different from that usually wrought by time; it looks greener with age, as the soil becomes more fertile by the decomposition of its own products.

The use of many of the vegetable manures common in Europe, prevails to a very small extent in this country. Soot, chips, rotten saw-dust, tanners' spent bark, and other matters that necessity forces the heavily taxed European to employ, are as a general thing, contemptuously thrown aside by the extravagant American. The facility of getting something to eat, renders him, in comparison with the European cultivator, profuse and neglectful. With the exception of our market gardeners, in the immediate neighborhood of large towns, there is very little economy in the use of manures or the management of land.

The mud from the bottom of rivers, ponds and places where stagnant water has remained for any length of time, and the scourings of old ditches, are matters which, according to Von Thaer, should be included among vegetable manures.—The value of this mud he rates very high as manure: where it contains much vegetable matter, it should be thrown into heaps until this is decomposed—the process of decomposition may be hastened by lime or fresh horse-dung mixed with the mud. Where there is acidity, this must be neutralized by animal manures, alkalies, or alkaline substances. In Dana's Muck Manual may be found statements commending the use of this material, and some experiments that bear out these statements, showing its strong action, and the high degree of fertility it is capable of producing, even on the thin sandy soils of New England.

A. L. E.

N. Y. Farmers' Club.--Discussion on Cutting Trees.

From the report of the discussion on cutting trees, at the meeting of the Club on the 23d ult., given in the N. Y. Farmer and Mechanic, we extract the following:

Col. Clark.—It is observed that about the middle of August, no ligneous matter is formed in trees. It is never proper to cut either for timber or fuel while the sap is running. After the sap ceases to run, when the fall of the leaf takes place, we may begin to cut, and so until and before the sap begins to run again.

Mr. Pike, of N. J.—Cut your wood for fuel or for timber, (as the old saying is,) in the old of the moon in August!

Mr. Macomber.—I agree to that maxim. It is best to cut our trees in the western forests at that time; for they do not then sprout again! I have tried it on five acres.

Mr. Hawley.—The moon has nothing to do with it, but the latter part of August is the best time to cut down a forest, to prevent sprouting from the stumps.

Col. Clark.—When the sap vessels of trees are full, if cut, the acetic acid of the sap immediately begins an injurious operation on the wood itself. The very bark and chips of trees cut at such a time, are found to be very brittle. The strength of the woody fibre is consequently much injured. But when the tree is cut when the sap is down, both the bark and the wood will be found to be tough.

Mr. Pike.—Yet our Jerseymen cut oaks for wheel-spokes in June, peel off the bark, and those who trade in the spoke business, have never found fault with the wood for want of toughness.

President Tallmadge.—According to my experience, a principle governs this question. Some cut trees in June merely for the bark, for the u-

ses of the tanner. But when the tree is wanted for purposes of strength and durability, another principle must be observed. A tree cut when full of its sap, perishes rapidly; the conditions favorable for a speedy decay of the timber, then exist and operate.

This leads me to remark upon an analogous consideration—that of the proper period for the transplantation of certain trees. It has been erroneously considered a difficult operation to transplant the evergreens. Now, as to the cedar, you can observe, if you please, that this evergreen sheds its leaves about the last of September, or the beginning of October. At this period, you can transplant the cedar, taking care as to its roots, &c., with as little loss as other trees, but at no other time.

I might, perhaps, properly remark that the ruling passion of the tree must be observed and obeyed, if we would succeed in its proper management. And, indeed, it is certain that in the annual growth of a tree, the new concentric layer of woody fibre which is annually formed, is due to the process of the sap and its peculiar action.—This process will not endure interruption, but will prove to you by its loss, that the tree must not be transplanted, except when this great process is suspended for the year.

Mr. Pike.—I suppose the dealers in wheel-spokes ought to know—but still I am of opinion that the proper time for felling trees for fuel or timber, is, undoubtedly, when the sap is down.

Mr. Hawley.—Our Canal Commissioners and our General Government, require that the timber they want for the public service, should be all cut in winter.

Mr. Meigs.—The utility of this discussion is to bring to the knowledge of many who do not know it, that there is a proper time for cutting wood for fuel or building, which is far more valuable than that cut at any other time. Many a man has suffered by the premature decay of the timber used by him in various buildings, without knowing that the wood was cut at the wrong season.

Mr. Cochran.—In the North of Ireland, oak timber cut for the bark, for tanning, in the middle of summer, was, after being stripped of the bark, offered to dealers in timber. These were principally knees for boats and vessels—but the dealers would not buy them. On trial, these timbers were found to be brittle. They should have been cut in winter, when the sap is out.

From the Ohio Cultivator.

The Model Farm of Ohio.

The model farm of this state contains 100 acres, 75 of which are well cleared, and the whole under fence. 60 acres are embraced in one enclosure, and this includes all the arable and meadow land upon the farm. The buildings are all of stone, neat, durable and commodious. The dwelling is not large, but capacious enough for use of the family and a room and a bed or two for an occasional friend. The kitchen and stables are supplied with water from the same spring. No stock but hogs and sheep are permitted to graze. The cattle and horses are constantly kept in their stalls, and are always in good order. The cows are at all times fat enough for the butchers, and the growing stock at two years old attain the weight of ordinary steers at four. During the summer they are soiled, with green food, consequently, 20 acres in grass is sufficient to keep four horses and ten cows with their offspring until the young stock are ready for the market at three or four years old, when they average him $30 per head. Of these he makes it a point to sell ten head a year. For his stock he raises about one acre of roots, sugar beets, mangel wurtzel and turnips each year, which yields him on an average about 1500 bushels. Of corn he cultivates five acres a year, which by proper culture and judicious rotation, yields him 500 bushels. Five acres in wheat gives yearly 150 bushels. Five acres of oats, 300 bushels.

He has an orchard of eight acres, in which he has 200 apple trees, 25 pear, 25 plum, 100 peach and 50 cherry trees. This is divided into four compartments of two acres each. Two of these, he plows up every year, and in the spring plants them in Jerusalem Artichokes. Here he keeps his hogs. In the two that are not plowed, he has a clover and orchard grass ley, in which the swine feed from the middle of May to the first of August, when they are let into one of the artichoke yards and range at will into the two grass yards and this till winter, when they are passed into the second artichoke yard, where they are kept till the grass has sufficiently advanced in one of the fields to turn them into that. Thus upon grass, roots and fruit the swine are kept so thrifty, that a few bushels of grain are sufficient to make them ready for the butcher. In this way he manages to kill thirty hogs a year, which will average 400 lbs. each. He gives them beet wintering.

His sheep range principally in the woods, with a small pasture of five acres. He keeps 75 head, which yield him 300 pounds of wool a year.

As this farmer has raised a large family, and raised them all well, having given each child a good practical education, I was curious to look into his affairs, and as he keeps a regular account current of his transactions, it gave him no trouble to inform me of the result of his mode of proceeding, which is briefly as follows:

Product of the farm—	
10 Beef Cattle, average $30 per head,	$300
25 Hogs at $12 per head,	300
200 bush. Corn at 25 cts. per bu.,	50
Product of sheep,	100
do. Dairy,	200
do. Orchard,	300
Other and smaller crops,	100
	$1,350
His hired labor cost him on an av. per an.,	300
	$1,050

Thus, from 100 acres of land, even in Ohio, this man has been able to lay by, and invest at interest, on an average, $500 a year for the last 12 years. He has now some eight or ten thousand dollars at interest, and his home is a home indeed. Who does better on a farm of 1000 acres? Or who has improved his condition by going west, more than he has by staying here? Of course like others he has suffered somewhat from unfavorable seasons, in some of his crops, but his cor-

rect system of culture and intelligent management generally obviates every difficulty which springs from this source and as his crops are always better than his neighbors', the advance in price more than makes up the deficiency. His system of saving and making manures, turns every thing into the improvement of his soil, weeds, ashes, the offal of his stock, soap suds, bones and every thing that will tend to enrich it, are carefully saved and properly applied.

The history of this man is brief, but to the farmer, interesting He began with the patrimony of good sense, sound health and industrious habits. Excellent so far. In 1830 he had six children and $3,000 in cash. He bought this farm in a state of nature in 1830, for which he paid $400. He expended $400 more in clearing his land, in addition to his own labor. He first put up a temporary cabin in which he moved his family. $1000 he put out at a permanent annual interest, and the remaining $1,200 with the earlier profits of his farm, he appropriated to the erection of his buildings, which were complete in 1834. In the selection of his fruit, he sought for the best varieties which always gave him preference in the market. So of his stock. In this he avoided the mania of high prices, and has made up in judicious crossing and breeding, what others seek at great cost in foreign countries. Every thing he does, is done well. Every thing he sends to the market commands the highest price, because it is of the best kind. In his parlor is a well selected library of some 300 volumes, and these books are read. He takes one political, one religious, and two agricultural papers, and the N. A. Review ; refuses all offices, is, with his family, a regular attendant at church, and is a pious, upright and conscientious man. He is the peace-maker in his neighborhood, and the chosen arbiter in all their disputes ; he loans his mouey at 6 per cent., and will take no more.

He says he wants no more land for his own use than he can cultivate well—no more stock than he can keep well—more land will increase his taxes, his labor and expenses will be less profitable.

Here is a model of a man and of a farmer, and the model of a farm.

Who will be happy and follow his example ?

AGRICOLA.

Hens.

It is very desirable to have a few eggs if no more, in winter, when they are scarce and high.—Great pains must be taken to make hens lay in the winter. They should have a warm and dry shelter or house; if kept in a close warm house, it should be kept clean by removing the manure frequently, which should be caught under the roost, and the house should be well ventilated in moderate weather; also well lighted and exposed to the sun.

They should have a good supply of pure water, grain, gravel, and dust or ashes to roll in.—They need lime for the formation of shells. Old air-slacked lime, or pulverized lime mortar is good, also pounded bones, oyster or clam shells, chalk, and now and then a little charcoal, raw potatoes, turneps and apples; but the best green food in the winter is cabbages.

It is best to keep two kinds of grain by them constantly, but not much at a time, unless protected in a feeder, for they will not eat it so well after it has been long exposed to the air. Corn, barley, oats, buckwheat, wheat and rye may be used, and the cheapest should be preferred. Besides grain as their principal food, they should have potatoes boiled, and then mashed up while hot with meal and bran, nnd occasionally give this *chowder* warm.

Another important thing, they must have meat or fish, as they are fond of animal food, and consume a great deal in the shape of worms and insects when they run at large in summer and choose their own food. Meat and fish may be boiled with their other food, and thus improve their chowder. Scraps may be obtained of those who try out lard, which is nearly as good as meat, and about as cheap as any food, as it is usually about one cent a pound. They should be chopped fine, so should the meat. Fish on boiling becomes tender.

If hens will not lay after all this trouble, it is a great pity, and rather than fail, after so much pains, more must be done. Give them warm, stimulating food. A little cayenne now and then in cold dough, when they are quite hungry in the morning. If they will not lay with good shelter and an abundance of good food and condiments, it is doubtless owing to their being confined to a small space, having nothing to do, and becoming lazy and suffering for want of exercise. To remedy this evil, which is a great one, have a good lot of gravel, not in mud or clay, dry or not wet, and cover up their grain from one or two to five or six inches deep, and let them scratch for a living, and the exercise will be conducive to health and productive of eggs.—*Boston Cult.*

Refining salt for Butter--Curing Meat, &c.

Would it not be an improvement in the domestic economy of farmers if they were all to adopt some simple method of purifying the salt they use in curing their butter, meat, &c. I have often thought that the bad quality of butter is attributable almost as much to impurities in salt as any other cause. Let any one consult a practical chemist, or a good chemical book, and he will be informed that the *purest* salt of commerce contains small quantities of sulphate of magnesia and lime, nitrate of soda and muriate of magnesia. Rock and bay salt are the purest, but even these contain the above named impurities. The more common salt, that is generally used in domestic economy, not only contains these but other impurities in considerable quantities; all which are well calculated to impair the effects of the salt for the purposes intended. A very little trouble and less expense will enable any farmer's wife to render the salt she uses perfectly pure. In the first place put a peck of salt into a large kettle with just clear rain water enough to dissolve it; boil it and skim off every particle of scum that arises to the surface. Then dissolve one ounce of carbonate of soda in four ounces of water, put it in the kettle and stir it well; then boil again for ten minutes, taking off all the scum that rises; then strain the brine through several folds of flannel.

A considerable quantity of earthy matter will be found in the bottom of the kettle, and that is

the cause of impurity. After this straining, a small quantity of muriatic acid must be added to the brine to neutralize the soda; say half an ounce or so; then the brine is to be put back into the kettle and boiled again till it crystalizes, or it may be put into a shallow wooden vessel and the water evaporate in the sun. Boiling is the quickest method. As soon as the salt is re-crystalized, it should be washed by putting it in a clean basket, and throwing a bucket of perfectly pure water over it and letting it drain off rapidly; then dry it. In this way, salt perfectly pure may be obtained. I am aware that many people will say that the process is too troublesome; but let me suggest that every kind of process for all kinds of objects is troublesome, and that it is only because this is new or never before practiced by them, that it appears troublesome. It is true that it is more troublesome than it is to take the common salt as it is and use it; but then we propose a valuable object to be obtained by this process of purification, that is not attainable from the use of common salt. If it is troublesome, it pays well for itself in the increased excellence of the butter, &c., in which it is used. A high degree of purity may be attained by the above process, even if the carbonate of soda and muriatic acid be omitted, though not absolute purity; common salt will be rendered by it much purer than the best rock salt without the carbonate of soda and the acid.—*Albany Cult.* D.

A Farmer's Life.

I wish I could see in all our farmers a disposition to magnify their calling; but I have been grieved in many a farm-house, to listen to lamentations over what they term their "hard lot." I have heard the residents upon a noble farm, all paid for, talk about drudgery, and never having their work done, and few or no opportunities for the children; and I have especially been sorry to hear the females lament over the hard fate of some promising youth of seventeen or eighteen, who was admirably filling up his duties, and training himself for extensive usefulness and influence.—They have made comparison between his situation, coarsely clad and working hard, and coming in fatigued, with some college cousin, or young man who *clerked* it in a store, till at length the boy has become dissatisfied, and begged off from his true interests and happiness.

I am conversant with no truer scenes of enjoyment than I have witnessed in American farm-houses, and even log-cabins, where the father, under the influence of enlightened Christianity, and sound views of life, has gone with his family, as the world have termed it, into the woods. The land is his own, and he has every inducement to improve it; he finds a healthy employment for himself and family, and is never at a loss for materials to occupy his mind. I do not think the physician has more occasion for research than the farmer; the proper food of vegetables and animals will alone constitute a wide and lasting field of investigation. The daily journal of a farmer is a source of much interest to himself and others. The record of his labors, the expression of his hopes, the nature of his fears, the opinions of his neighbors, the results of his experiments, the entire sum total of his operations, will prove a deep source of pleasure to any thinking man. If the establishment of agricultural societies, and the cattle shows of our country, should have the effect of stimulating one farmer in every town to manage his land and stock upon the best principles of husbandry, there would be a wonderful and speedy alteratien in the products of the earth, because comparison would force itself upon his friends and neighbors; and his example would be certainly beneficial, for prejudice itself will give way to profit.—*Choule's Address.*

New Importation of Sheep from Spain.

We understand that S. W. Jewett, of Weybridge, Vt., the owner of the celebrated Paular Buck, Fortune, is about importing some of the best of the Spanish varieties of Merinoes into this country. These Vermonters have the "go ahead" to them. We glory in their enterprise. Indeed, we have always felt proud of their 'spunk' ever since we read of old Col. Ethan Allen's taking Ticonderoga in the "name of the Great Jehovah and the Continental Congress;" and we are glad to find, that, in these "piping times of peace," and there are no "Britishers" to fight, their courage centers upon Agriculture, and while other farmers in North New England are murdering their flocks, the sturdy Green Mountaineers are straining every nerve to improve and excel in theirs. We have received specimens of the wool from Fortune's fleece, which we shall put in our woolen Museum, at the Farmer Office, for the inspection of those who are curious in such matters. It is long, fine and silky. We hope that every success will attend Mr. Jewett in his endeavors to improve the flock of the country. Such benefactors ought to prosper, and we hope every fleece, will, in reality, become a golden one to him, more rich than the fabled one of old.—*Me. Farmer.*

Keeping Cows in Winter--Important Counsel.

"The farmers prejudice very greatly their own interest in suffering their milch cows to come out in the spring in low condition. During the time they are dry, they think it enough to give them the coarsest fodder, and that in limited quantities; this, too, at a time of pregnancy, when they require the kindest treatment and the most nourishing food. The calf itself under this treatment of the cow is small and feeble. He finds comparatively insufficient support from his exhausted dam; and the return which the cow makes in milk during the summer is much less than it would be, if she came into the spring in good health and flesh. It requires the whole summer to recover what she has lost. The animal constitution cannot be trifled with in this way."—*Colman.*

Murrain, or Red Water in Cattle.—Take two pounds of Epsom salts—pour on them boiling water enough to dissolve them, and stir in one fourth pound of tallow. Give one-third of it warm for a dose, and at the end of seven hours another third if needed, and after a similar interval the remainder. The first dose is generally sufficient.—*Cor. Prairie Farmer.*

Domestic Economy.

For the Michigan Farmer.

Economy in Cooking Cranberries.

Owing to the scarcity of apples, pears, peaches, &c., prevailing throughout the state, as well as to the great abundance and excellent properties of cranberries, the latter are much used for sauce. In preparing them for the table, hundreds of dollars may, no doubt, annually be saved by the people of Michigan, by observing the following directions, and that, too, without causing the sauce to be any the less palatable.

To each quart of berries, very shortly after the cooking of them is commenced, add a teaspoon full of pulverized saleratus. This will so much neutralize the acidiferous juice, which they contain, as to make it necessary to use only about *one fourth part* as much sugar as would have been requisite, had they been cooked without using saleratus.

Potato Jelly.

The readiness with which a good sized basin full of thick jelly may be procured from a single moderate-sized potato, is a fact worth knowing. I have several times repeated the experiment, and find that it does not require more than eight minutes to change a raw potato into a basin full of most excellent jelly, which has only to be seasoned with a little sugar, nutmeg, and white wine, to please the most fastidious palate. To obtain this jelly in perfection let a potato be washed, peeled and grated; throw the pulp thus procured into a jug of water, and stir it well. Let this stand for a few minutes, and a sufficient quantity of starch will have fallen for the purpose required. Pour off the water, and then keep stirring up the starch at the bottom of the basin while boiling water is being poured upon it, and it will soon and suddenly pass to a state of jelly. The only nicety required is to be careful that the water is absolutely boiling, otherwise the change will not take place. Upon comparing this jelly with that from the starch called arrowroot, and obtained direct from Bermuda, I find a difficulty in my own person in discriminating between their flavor, though an invalid, in the habit of eating arrowroot. The difference, however, becomes more sensible when both jellies are made palatable with sugar, &c., for then, both the invalid (myself) and another person were equally decided in our preference of the jelly from the potato to that from the arrowroot, the other possessing rather a mawkish flavor, as though it had been prepared with smoky water.

Pies of Sugar Beets.

Philip T. Davis, of New Bedford, recommends making pies of sugar beets, as it has been practised in his family with good satisfaction. The beets are grated and the pies are made the same way as pumpkin pies, only a little more salt and spice should be added. In an urgent case pies may be made of pumpkin much more expeditiously by grating, instead of by the slow process of stewing, and then baking some longer. In this way there will be more flavor to the pumpkin, but more labor will be required, so say those who have experience in this business.—*Boston Cult.*

Miscellaneous Notes.

Retarding the Vegitation of Fruit Trees.—Pack down snow, or in the lack of that, pile ice over the roots of fruit trees, and cover well with leached ashes, and straw or stable litter. We are satisfied that this recommendation, carried to any reasonable extent, is perfectly safe, and in many seasons will save the fruit.

What is good Farming.—The best and most pithy definition we ever heard of good farming, was given by Mr. Kane, at a late agricultural meeting in Dorsetshire, England.—He said, he fed his land before hungry, rested it before weary, and weeded it before foul. —*Am. Ag.*

A bequest of $200,000, has been made by Oliver Smith of Hatfield, Mass., (a wealthy and benevolent man who recently died,) for the establishment of an Agricultural school at Northampton; not to go into operation until the above named sum shall be doubled.—*Balt. Sun.*

Growth of Meanness.—A germ of meanness, if it be not nipped at the first budding, will soon so overshadow and stunt every ennobling principle of the heart, that neither guano, fertilizing powers, nor all the manure of morality in creation, will be able to make them flourish again.—*Dow Jr.*

Lime and Leached Ashes.—If a portion of quick lime be mixed with leached ashes, it promotes the decomposition of the [illegible], and makes it more immediately available to the uses of vegetation. It sets free the phosphates, and soluble silicates from their combinations. It is necessary to apply but a comparatively small quantity of the mixture, and this should be to the surface.

Western N. Y. Agricultural School.—We are happy to learn that an Agricultural School is to be established in Wheatland, Monroe Co. N. Y., by Dr. Daniel Lee, and Gen. Rawson Harmon, at the residence, and farm of the latter. The high qualifications of these gentlemen, the one distinguished as a scientific, the other as a practical Agriculturist, furnish a guarantee that the proposed institution will be ably taught. Lectures are to be delivered on all the departments of natural science connected with agriculture; a Museum, illustrative of the Anatomy and Physiology of all the living things the farm produces is to be formed, soils and manures to be anal-

ized, and practical instruction given of the details of farming operations, with the skillfully managed farm of Gen. H. for an example.

The student will be charged for his board, washing, lodging, lights and firewood, from $1 50 to $2 00 per week; for tuition, from $8 00 to $12 00 per quarter: and he will be credited at a fair price for whatever service he may render on the farm. The projectors, however, do not promise *work* and *pay* for all that may offer.

We wish this noble enterprise complete success.

Acknowledgment.—To the Hon. Jas. B. Hunt, we are indebted for a copy of the interesting Report of Capt. Tremont's expeditions to explore Oregon and northern California.

Quere, are not some of the grasses mentioned by Capt. Fremont and other travelers in the Far West, as supplying pasture for grazing animals the year round, capable of profitable introduction in field culture?

The Literary Emporium; *A compendium of religious, literary and philosophical knowledge. Published by J. K. Wellman, New York.* This is the title of a neat monthly pamphlet, of 32 octavo pages, at $1 00 a year. The January number, being the commencement of vol. 3, is before us. The illustrations are elegant, and the contents such as make it an unexceptionable family magazine.

The Young People's Magazine; also published by Wellman, and edited by Seba Smith. Another very neat monthly pamphlet of 24 pages, at $1 00 a year—designed to afford interesting and instructive reading to the young.

Wellman's Monthly Literary Magazine; published in newspaper form, at 25 cts. a year.

McKnight's Patent Corn-Sheller, Crusher, and Clover-rubber.—J. T. Willson, of this village, the owner of the right to this machine for several counties in this state, has brought to our office, two specimens of its work which appear to be quite satisfactory. The one is shelled corn, ground to a fineness midway between common meal and samp—the other is corn ground in the ear, which is reduced to just about the right degree of fineness for feed. He informs us that with plenty of power he can grind at the rate of 20 bushels an hour.—We think the machine well worthy the attention of farmers, as producing a great economy of feed, though we are not prepared to decide upon the comparative merits of this, and other machines having the same object. We should want nothing better to fatten animals, or to mix with cut straw or hay for food for working cattle, than corn ground cob and all. It is well known there is nutriment in the cob, and that the mixed meal is less clogging, and will fatten nearly as fast as the same quantity of pure corn meal.

One of the machines might easily do the work of a whole neighborhood.

Plan of a Farm-house.

A plan of a farm-house was prepared for this number—but we have been unable to get it engraved in season.

Legislative aid to Agrictlture.—A bill has been introduced into the Legislature of Ohio, for the encouragement of Agriculture, containing some important provisions. Among the number, is the establishment of a State Board of Agriculture, consisting of seven members, to be appointed by the Legislature, to have supervision over the general interests of Agriculture in the State, to devise plans for its advancement, to appoint annually a State Commissioner to visit the different parts of the State, and deliver public lectures on Agricultural Science. There is also comprised a plan for the organization of County Ag. Societies, embracing a provision that any society organized, and raising a certain sum, may draw a like sum from the County treasury, provided it does not exceed a limited amount;—such money to be distributed in premiums. At our last advices, no action had yet been had upon the bill,

The cultivation of reclaimed Marshes--Information wanted.

We have not unfrequently been asked whether any marsh meadows have been brought into use as arable land, and with what result. We know this has been done, but have neither seen any instances of the kind, nor received any definite account of the success or failure of the experiment. The subject is an important one, and we should feel greatly indebted to any farmer who has raised crops of grain on these soils, to give us an account of the process—of the kind of crop raised, and how great the product,—also information as to what crops do best—and if seeded down after cultivation, how this succeeded?

Potatoes.

Wherever the rot has been heard of, accounts agree in attributing far greater prevalence among the variety called Neshanocks (sometimes misnamed Mashonics) than any others. When this variety, and the flesh-colored, or pink-eyes have been planted in the same field, the former have, in some cases, been nearly all lost, while the latter have escaped almost uninjured. This would probably make it prudent to abandon the culture of that variety for the present, which has hitherto been a favorite with many; since, judging from the manner in which the potato disease has spread elsewhere, it seems probable it may be experienced extensively in this state the ensuing season.

The experience of the past season, appears also to have established another fact—that late plant-

ed potatoes are far more liable to rot than early ones. When the fall frosts have found the vines green, the potatoes have generally proved, where the disease was prevalent, a total loss.

The following is an account of an experiment on this point:

"The potatoes for the last year were planted three weeks earlier than had been usual for a winter crop. A portion of the seed, eighteen rows, was of early whites procured from Boston—another portion, about forty rows, was round pink-eyes from seed procured in Caledonia county, Vermont, in 1840—a third portion of ten rows were long reds. The early whites were first ripe, and did not grow as large as the pink-eyes, yielding at the rate of about 130 bushels to the acre. The pink-eyes yielded at the rate of 200 bushels; and the long reds about the same. There was a difference of at least one-third less in the size and value of the few rows where the subsoiling was omitted two years before the planting of this year —so great was the difference that the man digging them could fill three baskets on the subsoiled land where the man along side on the strips omitted could not dig and pick up his two baskets.

What is worthy of remark in this growth of potatoes is, that in all the crop of whites, to our knowledge, up to the time of leaving Concord on the 25th of November, there had not been discovered a single rotten potato. The vines of these had all been ripened before any thing like blight or fungus appeared. The long reds remained green until the frost struck them: some few of these have since rotted. Five hundred bushels were sent to the Boston market before the alarm for the failure of the potato crop had begun: for these we obtained 40 and 45 cents per bushel.—Our information from Boston is, that none of our potatoes rotted after they went to market. The most of those who laid in potatoes in quantities, in the course of a few days found the rot commencing on very fair potatoes at the time of their reception. In some instances they have changed into a mass of putrid and offensive filth quite as annoying as the consideration of their loss.

We had another small piece of potatoes of a little less than an acre, planted three weeks later than the first lot, on new ground. These potatoes, when taken out of the ground, were apparently as fair as any other. But soon afterwards they commenced rotting; and whether any of them, after repeated looking over and sorting will last through the winter, remains to be yet ascertained.

Our exemption from rot in the larger field we attribute mainly to early planting. Perhaps the vigor given to the growth by the deeper soil brought into action from subsoiling might have contributed to the value of our crop. One hundred casks of Thomaston lime used within the last four years in making some fifteen hundred loads of compost muck, turf and barn yard manure, we are quite confident, have essentially contributed to add to the value of the crops from some twenty-five acres to which it has been applied. Lime, salt, leached and unleached ashes, and plaster, are excellent ingredients to mix in the compost heap. The quick lime ought not, however, to come in direct contact with the manures strongly tinctured with ammonia: to such, plaster will be a much better mineral ingredient."—*Monthly Visitor.*

Dr. Fitch's Essay on the Wheat Fly.

The fly described in this treatise, is a lively orange-red insect, about one-twelfth of an inch in length, which lays its eggs in the flowers of wheat. From these proceeds a minute worm, which is supposed to feed upon the pollen, of the anthers, and upon the fluids destined for the nourishment of the germ, which, for want of these fluids, becomes shrivelled in a greater or less degree, according to the number of worms in each plant.

This little insect has produced destructive ravages both in Europe, and in the Eastern United States. The first distinct account of it was given in the year 1771, when it appeared in England. Its first appearance in America was in western Vermont, in the year 1820.—Dr. Fitch describes two species of the insect, distinguished as the clear-winged, and spotted-winged wheat-fly. Neither of these species is known to have advanced so far west as Lake Erie. It is reported to have been detected in the Genessee country, for the first time, the present year.

This subject is at present chiefly interesting to the western farmer, by way of avoiding the introduction of the insect into the country. It would be safer not to import seed-wheat from any section of country where the fly is known, for it is found in the wheat after harvest, in its *larva* state. It is, then, a minute, orange colored worm, less than one-tenth of an inch long.

When once introduced, the essayest above quoted, thinks it will probably ever after continue, in greater or less numbers. But, as in the case of the great enemy of the Michigan wheat-grower, the Hessian fly, the extent of its devastations varies exceedingly in different years; some times almost annihilating whole fields, and sometimes leaving scarcely a perceptible trace. About two or three years after its first arrival at a particular locality, it becomes most excessively multiplied, and the devastations which it commits are almost incredible. Then, its numbers, and consequent ravages sensibly diminish, and after the lapse of a few seasons the cultivation of the wheat crop is again found to be comparatively safe.

Dr. Fitch attributes this rapid diminution in numbers, chiefly to that beautiful provision of nature, long since observed, additional instances of the truth of which are brought to light by the investigations of every year, to wit, that an undue increase in any of the species of the animal or vegetable world never takes place, without being speedily succeeded by a

corresponding increase of the natural enemies and destroyers of that species, whereby it again becomes reduced to its appropriate bounds.

The remark is suggested, as perhaps true, in the history of this insect, that it has somewhat *regular periods of recurring* in such numbers as to become a pest to the agriculturist; and the periods are supposed to occur at intervals of about 25 years.

Crops of Michigan for 1845.

We have been at some pains to ascertain, with an approach towards accuracy, the amount of the agricultural products of the state for the past year, as compared with the preceding. Our correspondents in nearly every county reported, represent a decided increase in the wheat crop, but the ratio varies much in different counties. In one, (Lenawee,) an intelligent farmer estimates the ratio as high as 4 to 1. In one only, (Eaton) chiefly consisting of timbered land, was the crop estimated at but 75 per cent of that of the preceding year. A combination of these various estimates would give as an average increase of the wheat crop through the state so far as heard from, of more than 100 per cent.

The crops of Indian corn, oats, barley, and buck-wheat, we do not find, on the whole, very materially different from those of the last year. In some counties, they are represented as somewhat better, in others worse. In potatoes, there is generally a falling off: in wool, a decided increase, as was to be expected from the increase in the number of sheep. Upland hay was a diminished crop, from the dryness of the season: while from the same cause, some of the marsh-meadows, ordinarily too wet, have been this year available.

It is much to be regretted that the Legislature did not make provisions for adding agricultural statistics to the recent State census. The cost would have been but little enhanced, and the information obtained valuable. Some counties made this the business of their marshals.

Maple Sugar.

The following communication sent us last spring, too late for publication then, is the copy of an article, prepared for the press a number of years since, by the most extensive, and on the large scale, the most successful manufacturer of maple sugar we have ever known, who resided in central New-York, and for several years made this manufacture his principal business, his product varying from 5 to 7000 lbs. The quality of his sugar was superior, as we know from repeated examination, and was preferred by many, to the best Muscovado. We think the article may furnish some valuable hints, especially to those wishing to embark in the business on a large scale. —Editor.

"Presuming that the result of my experience on this important subject would be pleasing to you, and no doubt useful to the public, I have thought proper to add a description of my sugar establishment. About 3-4 of my sugar is stirred off dry, and packed into dry casks. It thus keeps in perfect order, without being subject to any drain of molasses; the remaining 1-4 is drained with clay during the heat of summer and is then nearly equal to lump sugar. This circumstance proves that the sap is less adulterated than the juice of the cane; for all the West India sugars are subject to a drain of molasses from ⅛ to ¼.

"My sugar lot consists of about 200 acres of land, on which I have set two thousand pails, a considerable portion of the lot remaining unoccupied. I supply the largest trees with 4 pails, some with 3, others, 2, and many, 1. My whole number of trees in use I estimate at eleven hundred; making an average yield from a pail, of 3 lbs of sugar, and from a tree, 5¼ lbs., which is considered a fair estimate for this latitude. The labor required to manage my factory is much less than would be imagined, and without a knowledge of the plan might exceed belief. I have but one place of evaporating, where all the sap is collected; and all necessary house-room prepared, to store pails and reservoirs through the year. After becoming acquainted with the situation of all the trees for use, roads were cut in all directions, nearly parallel to each other, and so near, that no tree stands more than 100 feet from one of these roads. By this arrangement the labor of carrying the sap by hand is as much diminished as it would be were the whole number of trees situated on a space of 200 feet in diameter.

"To gather the sap, light one-horse sleds are used, with tapering casks fastened to them, 6 feet in length, 2 feet at one end and 20 inches at the other in diameter and containing about a hogshead. When drawn to the reservoir, the sap is conducted to it in one minute, without moving the cask; and in a similar way the sap is conveyed into the evaporators, as need requires.

"Two one-horse teams are usually manned with two hands each, and in this way each team will load and empty once in every 30 or 40 minutes.—When the sap has been plenty, 25 loads have been gathered with one team and two hands in a day. For the two last years, two horses have drawn all the sap from the said 2000 pails, though an extra sled has been kept in case of necessity. Four evaporators are provided made of sheet-iron weighing 3 lbs. to a square foot, each of which is about 9 feet in length, 6 feet wide, and 12 inches deep. The plan of setting them is simple; the bottoms being flat, two walls are built at a distance nearly equal to the width of the evaporator or pan; a flue is constructed for the conveyance of the products of combustion, and for increasing the draft; no fire is permitted to strike the sides of the pan, but its whole force comes upon the bottom only. Last season, three of these pans were used, and during the present, only two have been in use, to evaporate the 6090 lbs., in consequence of the moderate flowing of the sap.

"According to a calculation which I have made, sugar makers may venture to set seven or eight hundred pails to one of these pans, provided dry wood be procured, and the evaporation be continued during the night in case of extraordinary runs, which however do not often happen. I have used from four to five cords of wood to a thousand pounds of sugar made, which was cut and put under cover a year before being used. The above plan of evaporating is worthy of consideration by those who wish to improve the quality of their sugar, as it is acknowledged by all those who have become acquainted with it to be preferable to any other in use. Its advantages are—1st. It carries on the evaporation without the least particle of waste, as you cannot raise a fire sufficient to cause the sap to overflow. 2nd. No heat coming upon the sides, the syrup comes down in all its purity without any scorching or burning, and without any smoke or ashes disturbing the surface as in the common method. 3d. The ease and small amount of labor in tending, and the advantage of boiling during the night, as a single fire of large wood will evaporate 300 gallons and sometimes more with perfect safety, while the tender may be enjoying sleep. When the sap is boiled in cast iron kettles of the ordinary form, it is impossible to preserve the purity of the sweetness in its natural state; but it will become adulterated and darkened, in proportion to the heat applied above the sap. To this circumstance principally is to be attributed the unpleasant fact of maple sugar being so universally bad, especially in color. It was first calculated that sugar making on so large a scale as I had adopted would require six or seven hands; but five hands have managed my works with ease."

The superior quality of the sugar made by the writer of the above, was doubtless chiefly owing to his manner of evaporating. He considered stirred sugar as most profitable, being nicer and bringing a higher price than cake sugar, and losing nothing in molasses, as with drained sugar. He gives no specific directions for ascertaining the point to which sugar should be boiled before it is fit for the stirring process, nor for the manner of conducting it. These could be ascertained by experiment. If we remember right, the boiling was carried on as for caked sugar, and then it was suffered to cool till granulation commenced at the edges, before stirring, which was continued until dry.

Those who prefer draining their sugar, can obtain thereby an article superior in whiteness and purity, to that made by any other process. The following directions are gathered from various articles in the Reports of the Com. of Patents. Boil the sap, if possible, the day it is gathered. For every gallon of sap, add one measured ounce of clear lime water, to deprive the sap of acid, and evaporate. After boiling down to syrup which is about half the sweetness of molasses, strain through a flannel cloth into a tub or barrel to cool and settle for 12 hours. It is then taken out, care being used not to move the bottom where it has settled, and placed in a kettle or pan, (the latter is best,) and heated to 98 degrees, or blood heat. Then add for 100 lbs. of sugar, the whites of four eggs, two quarts of milk, and, (if the lime-water has not been previously used) one ounce of saleratus—the eggs well beat up, and the saleratus well dissolved—stir the whole together in the syrup. Then apply moderate heat, not so as to produce boiling until all the scum has risen. Boil, till done, which you will know by dropping some into water; which if done, will form a wax. Then take out into tin pans to cool, and form the grain; when this is formed, put into boxes made smallest at the bottom, having a thin piece of board fitted in two or three inches above the bottom, which is bored full of small holes, to let the molasses drain through, which is drawn off occasionally by a tap in the bottom. Put on top of the sugar in the box a wet flannel cloth, (which is to be kept wet for several days) and over that a board, well fitted in, to exclude the air.

By this process, samples are made, closely resembling loaf sugar. Those, who wish to improve it still farther, dissolve, after draining, and repeat the process.

Profitableness of Farming.

We propose to offer two or three suggestions, which, we believe, if followed, would tend to make farming more uniformly a good business: and, in so doing, we beg our friends not to get angry, or deem us querulous, if we use right down plainness of speech; but to consider, as said the old Scotch Baillie in the tale,—"it is weel meant—weel meant."

1. Good thorough farming, as distinguished from that which is poor and slovenly, is an obvious recommendation; but we have no space, here, if we were able, to *mention* even, the thousand and one things in which good farming consists. Some of these have been presented to our readers, derived from various sources, in our previous numbers; from which, we are sure, the attentive reader cannot have failed to derive valuable hints; many more remain to be treated of hereafter. But we cannot forbear to allude to what we believe all good farmers pronounce as one of the cardinal errors of husbandry at the west, and which has been before mentioned in our pages, viz: *the general neglect to seed down seasonably arable lands.* That this neglect tends to make farming unprofitable, can easily be shown. In consequence of it, lands are subject to constant tillage, year after year, by which the soil is every year exhausted of more or less of the elements of fertility. Hence results a diminution of product. This would be less immediately felt, if care were taken to adapt the successive crops of grain to the principles of a

scientific rotation;—so that crops should be made to succeed each other, which take out different principles from the soil: but, generally, very little attention is paid to this,—perhaps it is not generally well understood.

The system of incessant culture would do better, too, if great care were taken to restore to the soil in manures, and the right kind of manures, what the crops have abstracted: that is to say, if the crops were consumed upon the farm, and all of both liquid and solid excretions of animals were saved, and given back to the soil. But this, too, is very far from being the case. On the contrary, we do not know of a farmer in the state, (though perhaps there are such,) who has any contrivance for saving liquid manures, (quite as important as the solid,) and in some portions of the state, favored by nature with more abundant fertility than others, we are told may be seen piles of manure, which have accumulated in the barn-yard, from year to year, until the danger of rotting the sills of the barn, or the filling up of the sheds, has compelled its partial removal. Then, it is drawn out, not when it can be applied to the soil in the way to benefit it most, but when it can be done most conveniently.

When, then, there is practiced neither a judicious rotation, nor a careful saving and application of manures, there is no other result possible, than a rapid and fatal exhaustion of fertility. The truth of this, the experience or observation of every farmer will attest.—The result of such a course must be constantly diminishing harvests, and harder and harder *times*, until the occupant is obliged to sell out his exhausted fields, at a depreciated value, and start anew. Such has been the history of hundreds of thousands of farmers in the Eastern States, and such is the course which multitudes are pursuing among us. The plain remedy is, to stop short of this exhaustion of the soil, and stock down, while there is fertility enough remaining to make it comparatively easy to produce good crops of grass, and when this grass gives way in its turn to the plow, to bring forth good crops of grain.

In reply to this, some will say, "I am aware of all this,—but I *must* run my land for a few years, until I get my improvements made, my buildings erected, &c., and then I mean to give it rest." The question then arises, whether, taking into consideration the diminution and uncertainty of crops, which that plan involves, and the ordinarily low condition of the grain market, they do even secure, at the expense of permanent fertility, the greatest *present* amount of annual profit. For ourselves, we believe that the statistics of farming for the last six years, if they could be accurately arrived at, would show the reverse of this. Certain it is, that so far as our observation has extended, those farmers who could show the broadest expanse of meadow and pasture in proportion quantity of land, and who could consequently point to the largest and best conditioned flocks and herds, have exhibited the most substantial evidences of thrift —*they have done the best.* There is, to be sure, the objection of the immediate cost of seed and plaster—and this is all. This need not exceed from $1 to $1 50 per acre.

The neglect of stocking down seasonably, is a complaint, as above intimated, not confined to Michigan. It is common among observing agriculturists, throughout most of the western states; especially those, in which prairies and openings are geographical characteristics. This doubtless results, in part, from these lands not producing good crops of grass so readily as those in which there is a greater predominance of clay, and from their being easy to cultivate, and as it is said, natural to grain. But they can be made, and have been made to produce profitable grass crops—even those that appear the most unfavorable for them. What has been done, can be done,—and now, in this season of comparative prosperity, is a time when preparation might be made for this much needed change of system.

2. Incidental to the stocking down of lands, is the introduction of a more varied husbandry; and this must have a strong tendency to make farming more steadily profitable, less subject to the contingencies of markets, and of seasons unpropitious to any particulor crop.—We have not known a year, within the last ten when *some* description of farm produce did not bring a high price. The prudent farmer will shape his operations, so as to enter upon that species of production, which, for the time being will pay best:—having regard of course, to nett cost, certainty of market, risk of loss,&c. Judged by this standard, the wool-growing and dairy business take a high rank. While wool may be sold at from 25 to 50 cts. a pound, and cheese at 10, and butter at 16 cents, there can surely be no lack of profitable employment for agricultural capital.

3. A third means of securing profit from a farm, is for the farmer to make sure of having the year before him, in which to sell his produce; and as the only way of attaining this end, *as far as possible to keep out of debt.* We trust we shall not be thought to have traveled out of our sphere here; for, surely, if there be a class of the community, to whom this suggestion applies with peculiar force, it is to farmers. Contrast the condition of him who is free from debt, whose crop, when he harvests it, is his own, and who can consequently keep it in his granary until the market suits him, with his, we will not say, whose crop has been

covered while yet growing by an execution, but his, whose debts, "due after harvest," have anticipated a large share, or the whole of the year's product;—who is obliged to sell early, whether it be high or low, to satisfy the requisitions of creditors, and keep his promises,—interrupting, perhaps, his fall work, at a most important time, to get his grain into market, and securing *another year* of hard times, by the poor advantage at which he disposes of the products of this. Is there not difference enough in the situation of these two farmers, to justify almost any amount of present effort and sacrifice, to escape from the condition of the latter, and secure that of the former? He who has the year before him, in which to choose his time for marketing, is almost sure in its course to have opportunity to sell at a fair remunerating price; while he who is obliged to sell at the first rush of farm products in the fall, is about as certain of selling below the real value.

We know some, who have used up their capital, and incurred debt, to extend the limits of an already too extended farm. The same capital, expended in the more perfect improvement, and better cultivation of a smaller number of acres, would have saved them from embarrassment, and enabled them to live with vastly greater comfort and ease. Of all cases of debt incurred, such are generally the most unwise, and the least called for.

Let it not be supposed we are unaware of the numerous unavoidable pull-backs, which embarrass the operations of many—the expense of making improvements with limited means, sickness, and various other causes which imply no blame. But now is the time, (and we believe many are improving it,) to recover from these adverse circumstances.

The comfort, the independence, the security, which we love to contemplate as appertaining to the lot of the husbandman, can only be enjoyed by him, who is lord, not only of his own soil, but of its harvests also:—who can say, as he looks abroad upon his waving grain, and his goodly herds; "These are not the property of a creditor—they are my own."

New Discovery in Cowology.

The Farmer's Library for January announces a discovery as having recently been made in France, by which the milking properties of cows can be determined with great precision, by merely looking at the animal. And what is more strange, the same rules are said to enable one acquainted with them, to predict the milking properties of a heifer calf when but two or three months old. We have the authority of the respected Editor of the "Library," as well as of the translator of the French work, in which the system is set forth, late U. S. Consul at Havana, for believing that this is no humbug. It has also received the sanction of distinguished Agricultural Societies in France. The plan is to be given with many illustrations, in the next number of the "Library." Till then we suspend our judgmnt.

We *must* sometimes have a little fun—so here goes for the following from the Farmer's Monthly Visitor in praise of *laziness*. The position taken is at least new, and the writer's views original; while it sets out with a *lazy* suggestion which may be worth attending to.

New Corn Meal the year round.

This desirable article may be had by putting away the corn in the husk, perfectly dry, and as it is wanted, strip them off, shell and send to mill. This mode of obtaining sweet new meal is further recommended to the palate by the absence of rats and mice, from among the corn, as they almost entirely avoid meddling with corn in the husk, and is the discovery of a neighbor of mine who has been favorably noticed by the fraternity of easy people, by sending him a commission in the corps of the Lazy Society, of which he is a worthy member and enviable example; and I seize the occasion to say something for this most useful class of people.

We will strike at the root, as my worthy friend says, and see what the lazy would do if they had their proper influence. The law makers, for instance, are eternally at work making new laws, so that only the lawyers know what the law is, and the community is stripped and fleeced in perfect innocence. Would it not be far better to choose lazy men for Legislators, who should make no change? King log instead of King serpent, and does not every body admit that the world is governed over much? So says my neighbor Fisher, who is now an apprentice to our society, and is doing duty by keeping his hands for two weeks at a time in his blouze coat pockets. The discoverer of new corn the year round, now an officer, was too lazy to husk it, and his wife got great credit for new bread and puddings; and the rats preferring corn stripped, all ran off to the neighbors. Your lazy man is generally good natured, and always is a philosopher, and, as Fisher says, society is mainly indebted to them, for idle men think amazingly.

The Dignity of Labor.—Bishop Doane of New Jersey, delivered an oration on the fourth of July, before the Society of the Cincinnati at Trenton. The subject was "*Civil Government, a sacred trust of God*," and the following formed the opening paragraph—as beautiful as appropriate:

"It was the height of plowing. Upon a

farm of scarce four acres, across the Tiber, just opposite to where the navy yard was afterwards, a man was at his work. In shirt sleeves, his long crisp hair upon his shoulders, covered with sweat and dust, he was bending at the plow, when deputies approached him, before sunrise, from the Roman Senate, to apprise him that the Consul, with his army, was surrounded in the country of the Æqui; and that he, chosen Dictator, must march at once, with all the force that could be levied, to their rescue. Before the sun went down that day, his line of march was taken up, and the slant rays of the next sunset gilded the banners with which he entered Rome in triumph. 'Prevailing plowman,' as the Roman annalist well calls him. The campaign ended, he went back to his oxen. And with such rapidity, by all the gods, that one might say, he hastened home to get his plowing done! Such a man—of such simplicity, of such alacrity, of such integrity, modest in peace, as he was masterly in war—whom those, whose sweat and blood achieved the independence of the nation, held so high in honor, as to resolve to follow his example and adopt his name,—such was Lucius Quintius Cincinnatus. If there be a nobler name for peace or war than his, on any human record, purer in patriotism, steadier in disasters, cooler in trials, calmer in conquest, is it not the Cincinnatus of our Commonweath? Is it not General Washington.

Boys' Plowing Match.—At the Newcastle County (Delaware) Agricultural exhibition, last month, there was a spirited plowing match for boys under sixteen years of age.—It is thus described: "Now followed the second match, being entries for boys under sixteen years of age; eight of whom entered. Their performance was indeed surprising.—The first premium was won by a lad named Janvier; the son, as I understood, of a poor widow woman; and when asked whether he would have a piece of plate or its value in money, replied he would take the money; "he wanted it for his mother." The second was won by master George Jackson, a boy ten years old, (a son of Mr. Bryan Jackson, a large farmer,) and thought to be small of his age. The clearing up furrow of this lad exceeded any effort I ever saw of the kind by a boy. In addition to the second premium, Mr. Pedder presented him, through a member of the committee, as coming from the Messrs. Prouty, whose plough he held, a beautiful little watch, with chain, key, &c., and the possession of it seemed to gratify the little fellow much, nor was it scarcely less gratifying, apparently, to the numerous spectators, who all voted him the General Tom Thumb, of the plowing ground."

From the Maine Cultivator.

Does Buckwheat Improve the Soil?

Messrs Editors:—Some years since while I was a subscriber to the Yankee Farmer, I was occasionally struck with the remark that buckwheat would improve the soil; in other words, that light, arenaceous lands, to which the defect of a due cohesion among the constituent particles is obvious, while at the same time (as is usually the case with soils of this description) there is a superabundance of acid manifestly present in its texture, would be regenerated simply by sowing this grain, the only manure and stimuli required to secure this result being lime. Now I have tried this plan till I am confidently persuaded it is all whim and theory,—that buckwheat is an exhausting crop, and furthermore that it takes *far more* from the soil than it returns to it, *unless you plow in the whole crop.* In this way, *with the lime*, the action of which is durable and lasting, you may possibly, *in time*, effect some degree of improvement; but by sowing *buckwheat* simply, *if the crop be harvested*, you are certain to effect the deterioration of the soil more rapidly than in any other way with which I am acquainted—the cultivation of Flax not excepted.

Yours, P. G.———s.

Remarks:—The amelioration of a poor soil through the agency above alluded to, dedepends upon many concurring circumstances which, or most of which, our correspondent seems not to have taken into the estimate. It should ever be regarded as a fundamental and incontrovertible axiom in agriculture, that a crop growing and maturing its seed on the soil, necessarily diminishes its fertility. Even those plants denominated *aerial*, and which doubtless derive large portion of their nutriment from the atmosphere, draw largely upon the mineral resources of the soil. This fact is clearly demonstrated by the sollowing experimen:

If we take a plant of buckwheat, including of course the entire structure, roots, haulm, leaves and seed, and dry it in an oven heated to the temperature of eighty-six degreess, Fahrenheit, we shall find that it will yield about four per cent. of ashes. These ashes submitted to the operation of the analytical chemist will be found to be composed of twenty-nine parts of potass salts, forty-five parts of lime and magnesia salts, and twenty-six parts of silica, or sand. Now it is an established principle in vegetable physiology that a soil to be fertile in the production of any given product, must contain the mineral matters found in the ashes of that product, whether it be root or grain. By the above experiment the reader will perceive that buckwheat, though ordinarily classed by practical farmers as a non-ex-

hauster, deprives the soil chiefly of its lime and magnesia salts.

These are valuable constituents, and are operative in some degree, either directly or collaterally, in the subsistence of a variety of crops; for in wheat we find that in one hundred parts there is no less than twelve per cent. of lime, and fifty-one per cent. of silica or sand; so that in the *grain* of wheat, to say nothing of other constituents, we have two of the constituent elements of buckwheat, both of which are derived expressly from the soil. Our correspondent is right in his corollary respecting the "turning in" of this crop. On most soils no method of speedy improvement has been found more successful than this. We do not know as we have ever been brought acquainted with an experiment in which the result has not amply realized the expectations of the experimenter. On old fields, the productive energies of which have been reduced by injudicious cropping, its operations have been wonderful.

From the Boston Cultivator.

To Kill Moss on Buildings.

Messrs. Editors:—Having read an article in a late number of the Cultivator, recommending white lead for killing moss on the roofs of buildings, which may be a very good one, I will mention what I think a more economical one. Take wood ashes or lime, and sprinkle them on the roof, near the top, just before a rain, and I think it will kill it as effectually as any thing. If people would wash the roofs of their buildings once in three or four years with lime and water, they would not be troubled with moss on them.

By the way, I would recommend to those who are about to cover their buildings with shingles, and especially sawed shingles, to dip them in boiling tar, pitch, or rosin; say dip the but ends in eight or nine inches and out again, as soon as you will, and enongh will penetrate into the shingles to preserve them, I think, double the time that they would last without going through this process. T.

Leached Ashes.

"The same salts may be found in ashes as in the evacuations of animals. If what has been said be true, it follows that ashes is one of the most valuable of manures, and this is sustained by experience. I have been informed that large quantities of leached ashes are shipped to New York from the northern part of that state, for the use of the Poudrette manufacturers, &c. It sells at from 10 to 12 cents per bushel. Leached ashes consist chiefly of phosphate of lime or bone, earth, lime, marl, plaster of Paris, potash, charcoal and sand."—*Chas. H. Raymond in Ohio Cultivator.*

Another Great Yield.—Andrew Painter raised on the farm of Mr. Kimmel at Berrien, *ninety-five* bushels of corn on a single acre. The proof of this is conclusive, and we think no farmer in the St. Jo. Valley can beat it.—*Niles Republican.*

Bone Manure.

Some years since, a gentleman of our acquaintance, who had long been incredulous as to the value of bone-dust as a manure, determined to avail himself of a favorable opportunity, and give it an impartial trial. The soil on which the experiment was made, consisted of a light, sabulous sand, repoeing on a sub-stratum of gravel, and so porous as to admit of a ready descent. In seasons ordinarily dry, great inconvenience was experienced from drought, as all the water that fell was immediately taken into the subsoil without affording any essential benefit to the growing crop.

On this soil he planted ten quarts of beans, manuring every other row with bone dust, and leaving the remainder undressed, with the exception of a spoonful of gypsum to the hill. The favorable action of the former was so obvious that the difference was distinguishable as far as the crop could be discerned, and at harvest, the boned rows yielded double the crop afforded by those to which plaster only had been applied.

A similar experiment on a patch of Canada corn on the same soil, gave the same result. Since then he has made it a practice to use this manure liberally on all tillage crops, whenever it can be obtained. He is now, we are glad to say, exerting his influence to establish a mill for crushing bones in the town where he resides, and with prospects of success.—*Maine Cult.*

A Preventive against Moles.—I have discovered what I consider a sure preventive against the depredations of the ground mole in orchards. Late in the fall I draw fresh muck from the swamp, and put about ten bushels around the trunk of each tree, heaping it about one foot up the tree, then tread or pack it hard and smooth, and it will lie bare nearly all winter, and the moles will not disturb the bark. If the muck has to be carted a great distance, a quantity as small as one bushel might answer. I have never applied anything as a manure for apple trees on warm land equal to muck.—*Cor. Am. Ag.*

Shelter for Stock.

The importance of shelter to stock must not be overlooked—it having been fully demonstrated that warmth is equivalent to food. The heat of the animal system is kept up in the same manner as flame is supported—that is, by an union of carbon and oxygen. The animal derives its carbon from the food, which, having undergone digestion, is taken up by the blood and thence conveyed to the lungs, where by the act of respiration, it is united with a portion of the oxygen of the atmosphere, and heat is produced. Exposure to a low temperature dissipates the animal heat, just as heat is driven off from any other body similarly situated. It is obvious that the natural temperature of the body must be sustained or the animal will perish. As carbon is the only material by which this heat can be furnished, that substance must either be supplied to the blood from the fat and muscle

another of the same age, and in the same order, shearing 5¼ lbs., and raising a good lamb. The fleece of the first will be short, thin, and of a rotten, deadly appearance. The other, long, thick, and of fine silky, lively appearance. This last I breed from as long as good keeping will enable me to. I have now a ewe 18 years old, with a likely lamb at her side, and another, 14 years old, that has raised a lamb this year with as much grain as both would eat, which at seven months old weighed 109 pounds. From a flock of 320, I select annually 100 for breeding, in the spring before shearing, two years old, and upwards. From this selection I mark 20 or 30 of those which have thick, long, fine wool, free from gum or jar, or any appearance of coarse wool or hair, on the flank or tail. The female part of the increase of this selection are preserved; without this attention to marking the best ewes before shearing, the best of the flock will be disposed of after shearing. I give my 100 ewes six quarts of corn per day. My lambs seldom have any grain, the remainder of the flock have no grain. All are housed in the winter, and have access to good water and salt at all times. I have many ewes which from old age shear light fleeces. Yet my whole flock of over 300, yield 4 lbs. and 4 ounces per head. I have no 10 or 13 lb. fleeces. My heaviest buck fleece weighed 8½ lbs.

There is but little known as to the weight of wool from the weight of the fleece. I tried the experiment once upon two bucks. One weighed over 8 lbs., and the other 6¼ lbs., both in the same order and washed alike. The largest fleece weighed after being cleansed, 3½ lbs., and the other 4 lbs. I do not believe a fine wooled sheep can be produced in Vermont, that will in one year yield 6 lbs. well cleansed wool. I hope your correspondents will send you the amount of the fleece well cleansed, and the price their wool brings this year. I sold my last year's clip the 8th of last March, and this year's clip last month. The average price of both clips is 39½ cents. During the the last seven years it is as follows. My clip of 1842 and 1843 sold in 1843, at 34, 36, 43, 45, 46, and 70 cents.

If the wool-grower will look back to the prices of those years, he will find the tariff has had but little effect upon the prices. This jumping out and into ship at every session of Congress, is what ruins the wool-grower.—He must expect ups and downs in prices; that is the lot of all. I fear not the west. The increase of sheep (fine sheep,) does not keep pace with the increase of population. Fine sheep never can survive the cold rains of the western prairies. Fine wool yields a better profit to the farmer even at this time than any other agricultural business. This is the first time I have spoken. Therefore please excuse my long yarn.

JOHN S. PETTIBONE.

Manchester, Vermont, Oct. 28th. 1845.

Remarks.—This sturdy Vermonter entertains no apprehension of the supply from the west affecting the price of fine wool. But the ground on which his confidence rests is, we think, quite illusory—that the West cannot rear fine-wooled sheep to advantage. When such sheep are provided with the same protection which is furnished them in New-England, there is no difficulty in keeping them, nor have we any evidence that the quality of the wool degenerates. We have not, it is true, the fine mountain sheep-walks of Vermont—but we have a dry soil and climate, which produce a quality of grass favorable for the production of the best quality of wool—while our somewhat milder winters, and light snows, are circumstances in our favor. Alternating so advantageously as wool-growing does with wheat-culture, so that it is an advantage to the western farmer to keep his sheep, if it were only for the fertility they impart to his summer fallows, the west can furnish the eastern market with this staple, if need be, at a price with which the Yankees, with all their thrift and management, cannot compete.

ED. MICH. FARM.

AN ESSAY ON THE WHEAT FLY, *and some species allied to it, by* ASA FITCH, M. D.—The author will accept our thanks for a copy of this interesting pamphlet. We have not had time to read it, but promise ourselves soon much pleasure and instruction from its pages.

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Michigan Farmer.

TERMS.

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